

# Central Indiana

## August 2016

### Climate Summary

**9<sup>th</sup> Warmest on record at Indianapolis**

**4<sup>th</sup> Wettest on record at Indianapolis**

### Temperatures

August was the warmest month for many since 2010 as heat and humidity consistently impacted the Ohio Valley. August began warm and dry with many locations above 90° on multiple days during the first week of the month. Temperatures remained warm as the weather pattern became more active, with several locations experiencing their hottest day of the month and summer on either the 10<sup>th</sup> or 11<sup>th</sup>. A deep plume of tropical moisture interacted with a frontal boundary to produce heavy rain and widespread thunderstorms on the 13<sup>th</sup> through the 16<sup>th</sup>, resulting in cooler days with highs struggling to rise out of the 70s. Temperatures recovered to normal levels in the 80s for a few days before another cold front passing on the evening of the 20<sup>th</sup>, ushering in a cooler, drier and much less humid airmass for the region. Highs in the upper 70s and lower 80s were common from the 21<sup>st</sup> through the 23<sup>rd</sup>. A much more active and more humid weather pattern returned for most of the last week of the month, with highs once again warming into the upper 80s and lower 90s.

Warm overnights were common throughout the month as well, with 20 of the 31 mornings staying at or above 70 degrees in Indianapolis. This set a new record for the number of 70°+ lows in August, besting the previous mark of 19 days in both August 1900 and 1995. Many areas saw only 1 or 2 mornings below 60° the entire month. For Indianapolis, only the 22<sup>nd</sup> saw a low temperature fall below 60°, the lowest number of days since August 2007. The 12 90°+ days at Indianapolis matched August 2011 for the most days at or above 90° in recent history, and most since the 16 days in August 2010. Ultimately, this made for a warm finish to a warm summer in central Indiana.

Site	August 2016 Avg Temp	August 2016 Difference from Normal	Highest Temperature	Lowest Temperature
Indianapolis	78.2	<b>+4.0</b>	93 on 11	58 on 22
Lafayette	75.5	<b>+2.3</b>	92 on 10 and 11	53 on 22
Muncie	76.8	<b>+4.3</b>	92 on 4 and 9	55 on 22
Terre Haute	77.3	<b>+4.5</b>	93 on 11 and 28	55 on 22
Bloomington	76.5	<b>+3.5</b>	92 on 28	54 on 22
Shelbyville	77.3	<b>+4.9</b>	92 on 28 and 29	55 on 22
Indy – Eagle Crk.	77.9	<b>+3.8</b>	92 on 11	60 on 22 and 23

At Indianapolis, there were 25 days with above normal average temperatures, 4 days with below normal average temperatures and 2 days with a normal average temperature.

August 2016 was the 9<sup>th</sup> warmest in the Indianapolis area since 1871.

## Precipitation

August 2016 was the wettest August of record for many areas of Indiana. This included the South Bend area and most locations in northwest and north central Indiana, the northeast and eastern portions of the Indianapolis metropolitan area, and the Vincennes, Bloomington, Columbus and Batesville areas in southern Indiana. Rainfall in these areas totaled more than 10 inches.

The driest areas of the state included northeast Indiana and southwest and south central Indiana immediately north of the Ohio River. Precipitation totals in these areas ranged from 2 to 3 inches. The remainder of Indiana received between 4 and 8 inches during August.

Rainfall varied widely between local communities as well as across the state. In the immediate Indianapolis metro area monthly amounts ranged from slightly more than 3 inches in northwest Hamilton County to more than 11 inches in northeastern Marion and eastern Hancock Counties. Monthly totals in Indiana ranged from slightly over 2 inches in northeast and southwest Indiana to more than 13 inches in northwest Indiana.

Areal and flash flood events during August were frequent in the state between the 13<sup>th</sup> and 28<sup>th</sup>. The more noteworthy events occurred on the 13<sup>th</sup> in southwest Indiana, on the 15<sup>th</sup> in the South Bend area, on the 24<sup>th</sup> in central Indiana, on the 26<sup>th</sup> in the Indianapolis area, and on the 28<sup>th</sup> in the Muncie area.

Rainfall of 6 to more than 8 inches from the 13<sup>th</sup> through the 15<sup>th</sup> caused lowland river flooding along the White River in southwest Indiana and the East Fork White and

Muscatatuck Rivers in Jackson County. Flood crests ranged from slightly over flood stage to 3.5 feet above flood stage. Flooding lasted from 2 to 4 days.

At the end of August, many areas remained on the wet side. Abnormally dry conditions in northeast Indiana totaled less than 10 percent of the state.

Site	August 2016 Precipitation	August 2016 Difference from Normal	Wettest Day	Longest Dry Stretch
Indianapolis	7.32	<b>+4.19</b>	1.82 on 26	5 days 5-9
Lafayette	5.20	<b>+1.74</b>	1.94 on 15	11 days 1-11
Muncie	9.26	<b>+5.96</b>	2.45 on 13	5 days 5-9
Terre Haute	1.37(*)	<b>-2.24</b>	0.60 on 20	9 days 2-10
Bloomington	7.34	<b>+3.82</b>	1.93 on 14	2 days 6-7, 18-19 and 22-23
Shelbyville	7.21	<b>+3.82</b>	1.33 on 14	3 days 1-3, 7-9, 17-19 and 21-23
Indy – Eagle Crk.	6.30	<b>+3.11</b>	1.09 on 13	5 days 5-9

August 2016 was the 9<sup>th</sup> wettest in the Indianapolis area since weather records began in 1871.  
(\*) – Precipitation data missing at Terre Haute on August 15.

## Severe Weather

After a quiet start, August became active for severe weather across central Indiana and the entire Hoosier state for much of the second half of the month. It was a historical month for tornadoes as two separate outbreaks impacted the state, setting a record for most tornadoes ever in August at 18.

The first outbreak occurred on August 15, as a supercell moved from Hendricks County northeast through Boone, Hamilton, Tipton and finally Howard County, producing multiple tornadoes along its track. Six tornadoes in all occurred with this supercell, the strongest producing EF2 damage near Whitestown in Boone County. In addition, two additional tornadoes occurred, one near Lafayette and the other in Avon. The eight tornadoes from the event became a daily record for August tornadoes in Indiana, briefly. For more information on this event, please click the following link  
<http://www.weather.gov/ind/aug152016severe>.

That record would last for all of 9 days, as a larger and more intense tornado outbreak impacted the state on the afternoon and evening of the 24<sup>th</sup>. Multiple supercells produced tornadoes across central and northern Indiana, the strongest being an EF3 that caused extensive damage in Kokomo and an EF3 near Woodburn east of Fort Wayne. The epicenter of the outbreak was Howard County which saw at least four

separate tornadoes, including the EF3 in Kokomo. In all, 10 tornadoes occurred across the state on the 24<sup>th</sup>, becoming the new record for daily tornadoes in August in Indiana and only the 17<sup>th</sup> day with 10 or more tornadoes in state history. For more information on this event, please click the following link

<http://www.weather.gov/ind/aug242016severe>.

Additional severe weather occurred at various times throughout the second half of the month with wind damage and hail. A storm impacted the Indianapolis metro area during the tail end of rush hour on the morning of the 26<sup>th</sup>, producing wind damage and an impressive shelf cloud.

For information on severe weather in other areas during August, visit the Storm Prediction Center "Severe Weather Event Summaries" website at

<http://www.spc.noaa.gov/climo/online/>.

## Miscellaneous

The maximum wind gust at Indianapolis International Airport was 36 mph out of the east-southeast on the evening of the 26<sup>th</sup> as heavy thunderstorms impacted the Indianapolis metro area. Fog or haze was reported at Indianapolis on 17 days during the month, with dense fog occurring on the morning of the 18<sup>th</sup>. Thunder was reported on 9 days in August.

## September 2016 Outlook

The official outlook for September 2016 from the Climate Prediction Center indicates a greater chance of near to slightly above normal temperatures for central Indiana. At Indianapolis, the average temperature for the month is 66.9 degrees. The outlook also calls for a greater chance for near to slightly below normal precipitation for the month. The average precipitation for September at Indianapolis is 3.12".

***Data prepared by the Indianapolis Forecast Office.***